

STB News

March 2004



Dana Benelli works in LDRD

Four Student Employees Work at STB-Canyon

(Editor's Note: Summer is coming, and hundreds of young people will arrive in Los Alamos soon to begin or continue student jobs at the Laboratory. It's interesting to talk with students about their experiences, their views, and their hopes. Such conversations provide a window into the future. STB News profiles the student employees at Canyon School in this issue. We hope to interview and feature the student employees at the Research Library in April. Our goal is to make these young people more than just slightly familiar faces in the hall.)

There are four student employees at Science and Technology Base Programs (STB) in Canyon School right now, and they have much in common. All four of them have lived in northern New Mexico for many years; all of them are attending in-state universities; all of

them have a long history of employment at the Laboratory; and all of them say that their work in STB has been a pleasant experience that has played an important role in augmenting their studies and teaching them about the "real world."

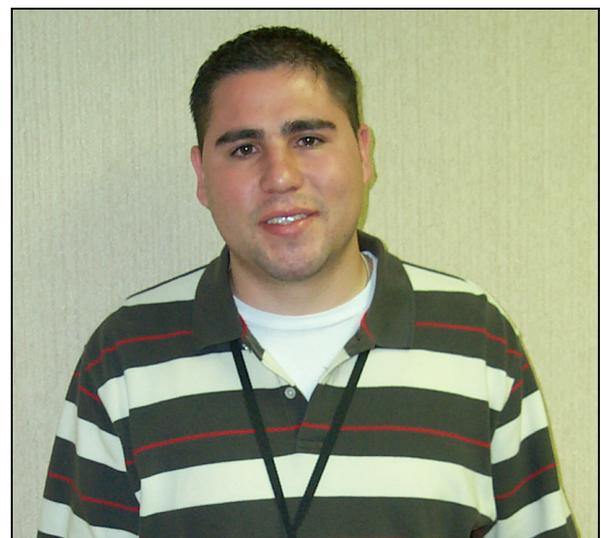
The four are Dana Benelli, Daniel Duran, Elizabeth ("Liz") Ramirez, and Leah Sandoval.

Dana Benelli

Dana Benelli has an unusual background. She was born in Naples, Italy. Her father, Mike Benelli—now a Human Resources (HR) employee assigned in Canyon School—was in the Air Force at the time. The family moved often, she said, but they found Italy a particularly interesting assignment because they are of Italian descent.

Benelli was 12 when they moved to Los Alamos and settled down. She attended Los Alamos Middle School and graduated from Los Alamos High School. When she began looking for a job, it was only logical for her to consider Protection Technology Los Alamos (PTLA), where her father was working at that time.

(Please see STUDENTS, page 5.)



Daniel Duran is in Foreign Travel.



Carole Rutten, top center, talks about some of the tough realities of the Critical Skills Development Program—student housing and on-site training.

Kickoff Meetings Launch 2004 Student Programs

Spring is a busy time in the Education Program Office (EPO) because many student programs are gearing up at the same time. In March, EPO employees were involved in three workshops essential to student programs.

Critical Skills Development Program

About 25 people attended a March 10 meeting at Canyon School to introduce Laboratory participants to the fiscal year 2004 (FY04) Critical Skills Development Program (CSDP).

Most of those present for the 2004 CSDP kickoff were principal investigators or assistants in 12 continuing programs and three new programs that will be funded by the Department of Energy in FY04 for a total of \$1.285 million—up \$55,000 from FY03.

The meeting featured opening remarks from Min Park, interim program manager of EPO, a team within Science and Technology Base Programs (STB). Park spoke on CSDP's importance to the Laboratory. He noted that student programs tied to critical skills provide a way to identify prime candidates for the "pipeline" to future jobs at the Laboratory, to assist them in completing vital educational programs, and to train them in crucial skills available almost nowhere except Los Alamos.

CSDP assists students in getting good educations and good jobs—and it assists the Laboratory by assuring that there will be outstanding people in the future to step up and replace science and technology specialists who retire.

Carole Rutten, student/mentor liaison for EPO, dealt with a number of essential, practical issues affecting students. She spoke on student housing options for summer 2004, student orientation, mentor training, evaluation of FY03 student programs, General Employee Training, and on-site training.

Lucille Lucero, budget analyst for STB, answered questions about the CSDP budget and legitimate uses of the money.

Sandra Landry, CSDP team leader, provided an overview of the reports required by the National Nuclear Security Administration-Defense Programs. She also told the audience what to expect during the upcoming General Accounting Office audit.

(Please see KICKOFF, page 3.)

KICKOFF (Cont'd from p. 2.)

Landry commented later that the meeting drew good questions and good discussion. "It was a productive meeting," she said.

Information handed out at the meeting listed the CSDP programs that have been funded for FY04.

The 12 continuing programs are: the Accelerated Strategic Computing Initiative Internship Program, the Adventures in Supercomputing Challenge, the Applied Science Internship Program, the College Cyber Defenders Program, the Computer System Administrator Development Initiative, the Dynamics Summer School, the Glovebox Technician Pipeline Project, the Go Figure Mathematical Challenge, the High-Explosives Engineering Training Program, the Materials Science Technician Training Program, the Robotics Competition and Internship Program, and the Summer School in the Physical Sciences for Undergraduates.

The three new programs are: the Los Alamos Nondestructive Testing Summer Program, the Los Alamos Student Intern Program in Nuclear Criticality Safety, and Weapons Materials Science for Graduate Students in Neutron Scattering.

Expanding Your Horizons

The annual Expanding Your Horizons (EYH) 2004 student and teacher conference was held March 11 at the Immaculate Heart of Mary Catholic Church Parish Hall and Canyon School in Los Alamos.

It drew 18 adults (teachers, parents, and a few other interested persons) and approximately 100 schoolgirls from northern New Mexico communities as far away as Peñasco. The program was designed to involve young women (and their teachers and families) in science and mathematics.

Jill Tarter, director of the Center for SETI Research, was the keynote speaker. (SETI is the "Search for Extraterrestrial Intelligence.") Tarter holds a doctorate in astronomy from the University of California-Berkeley, where her major field of study was theoretical high-energy astrophysics. It was at Berkeley that she became interested in the search for radio signals that might reveal the existence of extraterrestrial civilizations. She is still pursuing this interest—which was popularized in the movie "Contact."

There were also presentations by several other scientists who spoke on topics ranging from climate change to cryptography.

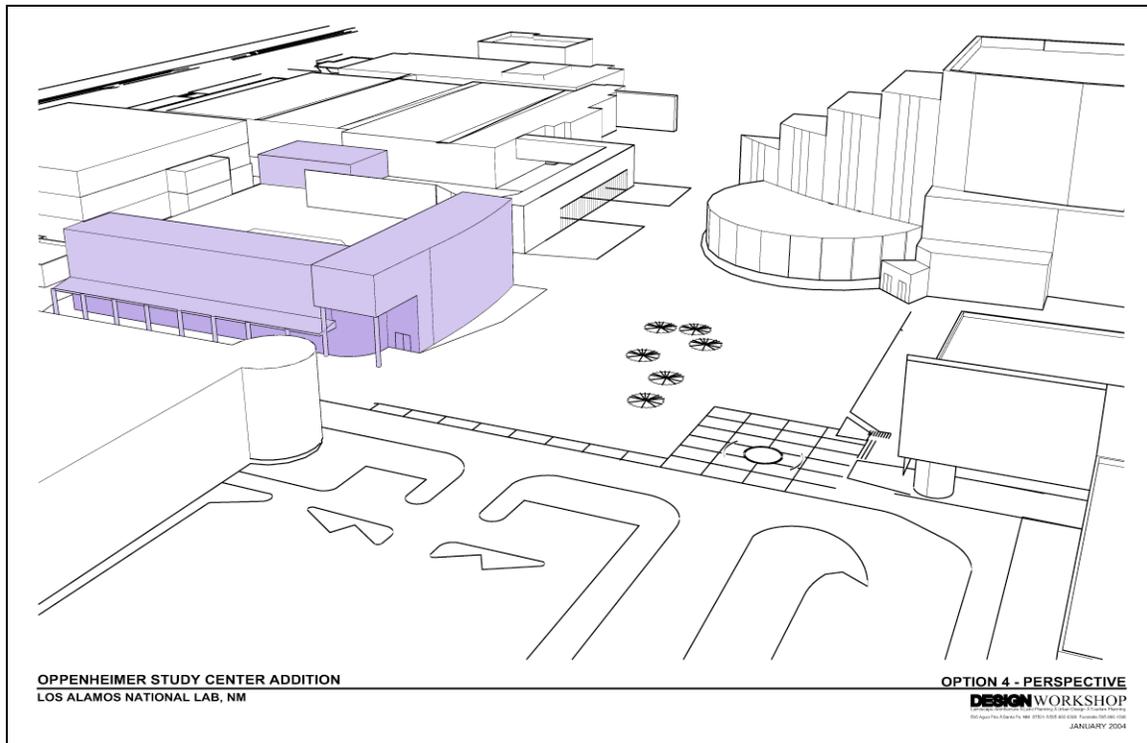
Teachers participated in their own meeting at Canyon while students enjoyed entertaining science talks at the Catholic Church. Topics and speakers at the teacher conference included the following: "There Is a Little Engineer in All of Us!" by Graciela Perez; "Math & Science Academy," by Catherine Berryhill; "Adventures in Supercomputing," by David Kratzer; "Robotics Competition," by Joseph Vigil; "Math Counts," by Peter Adams; and "StarLab Training," by Angela Martinez.

An evaluation exercise conducted late in the meeting showed that teachers rated their conference at 8.7 on a scale ranging up to 10.

(Please see KICKOFF, page 5.)



Joe Vigil of the Robotics Program addresses adults attending "Expanding Your Horizons."



This drawing above shows the long-range, conceptual plan for expansion of the Research Library. The purple portions of the drawing could be in place within 10 years. The building at right center is the Otowi Building. The stepped building at center is the new building now under construction south of the site where the old Badge Office stood.

Research Library Plans for Expansion in the Future

Technical Area 3 is a study in change this year. Old buildings are vanishing, and new ones are going up. Only a few of the “old, familiar places” remain. One of those is the J. Robert Oppenheimer Study Center, home of the Research Library.

But libraries grow and change too, especially in the age of computers....

And, in fact, although the library will stay where it is—familiar and useful—it is likely to change somewhat in the next few years.

Jackie Stack, deputy group leader at the Research Library, said in a recent interview, “In the future, we would like to be considered as part of the Laboratory Research corridor” that is shaping up in TA-3. She said that a good baseline study has been completed, and the library is now beginning a decade long “Hallmark Building Project.”

The library’s plan—all conceptual at present—would be phased in using General Plant Projects (GPP) money, which funds special projects under \$5 million. Potentially, the changes to the library would be funded as three separate GPP projects.

Stack said the Research Library recently finished collecting staff feedback on what should be in place in 10 years to support the “library of the future.” The next step will be the development of a list of “functionality requirements” involving questions about what activities should be located near each other.

Once all the necessary facts and plans are in place, she said, the Research Library will prepare a proposal for Allen Hartford, leader of Science and Technology Base Programs, who will move it forward through the Laboratory political facilities building processes. She hopes that construction can start in two to three years at the earliest.

For a peek into the future, study the drawing above, which shows new additions wrapped around the north and west sides of the existing Research Library building and a new “cube” on the southeast corner.

KICKOFF (Cont'd from p. 3.)

EYH is a project of the National Math and Science Network. Locally, the New Mexico Network for Women in Science puts on the program. The Laboratory is a co-sponsor.

The chairwoman of the EYH meeting was Georgia Pedicini from the Computing, Communications, and Networking Division (CCN-7). Lisa Colletti—of the Chemistry Division's Actinide Analytical Chemistry Group (C-AAC)—handled registration. Landry and Martinez (both from STB) co-chaired the teacher conference. (Martinez was the “student,” and Landry was the “mentor” in a successful cross-training experience.)

Mentor Training

On March 23, at the Physics Auditorium, Ruten conducted the first of two annual meetings to brief mentors of student employees. (The second is scheduled April 6.)

These 90-minute sessions are designed to prepare mentors thoroughly so that they can guide students, answer their questions, and see to it that student experiences at the Laboratory are comfortable and worthwhile. The training is intended to help the mentors achieve a rewarding experience as well.

Each participating mentor is provided with a booklet filled with useful information. Students receive complementary booklets at their orientation.

STUDENTS (Cont'd from p.1.)

She got a job at PTLA and worked there in the summer of 2000 and the summer of 2001. In the summer of 2003, however, she went to work for STB-Laboratory Directed Research and Development (STB-LDRD), doing data manipulation. She has continued to work for LDRD on holidays, and she will be back this summer.

Benelli is a human resources management major at New Mexico State University in Las Cruces. She will be graduating with a bachelor's degree in May—just two months from now.

Asked what she will do after she graduates, she said, “I'm coming back here. I have a year's appointment in LDRD as a grad student.” After that year, she said, she hopes to get a job as a human resources generalist in HR.

She is thinking about going to graduate school and seeking a master's degree in business administration with an emphasis in human resources management. She has not chosen a graduate school yet, but if she goes, she would

like to be able to combine graduate study with a job at the Laboratory.

She has a very special reason to want to stay at the Laboratory. She is engaged to a Laboratory employee, Cale Jones, a budget analyst in the Chief Financial Officer Division (CFO-3). They plan to be married in October.

Asked about her experience at the Laboratory so far, she said that it has been very positive. Although she is not working in human resources, her field of expertise, her previous major in business computer systems has helped her in her work at LDRD, where her mentor is Lennett Rendon. Benelli said Rendon is “just cool. She gives me a lot of leeway ... She's laid back. Her door is open.” And, she added, Rendon is wonderful at answering questions.

Daniel Duran

Daniel Duran, a general business major at the University of New Mexico's Anderson School of Business, will also be graduating with a bachelor's degree in May.

Duran has been a student employee for two and a half years. He has spent all of that time in STB-Foreign Travel. Because the team has made such good use of his time, he said, “I know it from top to bottom.” Asked if his university and Laboratory work related well, he noted that, “General business teaches you to be a manager.” He has not achieved that level yet, but he said he does help to make some decisions in Foreign Travel. “We all do.” As a result, he has used some of his UNM training here. At the Laboratory, he said, “I've learned a lot of human resources skills” and gained “a lot of real-world experience.”

He first became interested in working at the Laboratory because his high school biology teacher told him about it, he recalled. He tried for an internship but did not get one.

However, Rebecca Duran in STB-Education Program Office (STB-EPO), is his aunt. When a student job became available in Foreign Travel, she told him about it. He applied and got it.

He said he has thoroughly enjoyed working in Foreign Travel. “I couldn't ask for better co-workers,” he said. “They make coming in to work something that I look forward to every day.”

Asked what he wants to do after graduation, he said, “I would like to stay in STB.” He would also like to continue to live in his hometown, Chupadero. His parents own land there, he said, and he has an older brother and sister and four nephews in the area.

STUDENTS (Cont'd from p.5.)

He has an extensive employment background. He has worked in his father's Santa Fe business, Waldo's TV and Vacuum. He has also worked for Enterprise Rent-a-Car and in various restaurants. But his job at the Laboratory has been his favorite employment experience. "This is what I like," he said. "This is my niche." Foreign Travel has helped him to reach out and learn many useful and interesting skills.

He is considering going to graduate school—perhaps after working a year or so to establish himself. He commented that he has had a lottery scholarship all the way through UNM. He will finish his undergraduate degree "owing zero dollars," he said. "It's wonderful." If he goes to graduate school, he will probably go into human resources. He said general business has been the appropriate major for him because it "opens up so many fields" and it helped him to find out what he liked—working with people.

Elizabeth ('Liz') Ramirez

Liz Ramirez is still an undergraduate student, but she already has a long employment history—six years at the Laboratory.

Ramirez—daughter of Carlos Ramirez, who heads the UNM-Los Alamos (UNM-LA)—was born in Fremont, Calif., but she moved to Los Alamos when she was six. (She has a fraternal twin, but don't look for someone just like her. She says HE is TALL.) She was a student at Los Alamos High School when she started working in the former Business Division (BUS-7). Subsequently, she took a job in STB-EPO, where she has worked for approximately four years now.

She recalled that it was her high school advisor who helped her get her first job at the Laboratory. Subsequently, she became interested in STB because of a personal connection. "I knew Carole (Rutten, now her mentor) from UNM-LA," she said. "She was my (university) advisor. I knew she was coming over here, and I said, 'If you ever need help....' She gave me an opportunity to come here ... Mindy Mendez (also in STB-EPO) has also been a great teacher to me."

Ramirez is now a fourth-year student at UNM-Los Alamos, where she is working toward a bachelor's degree in university studies with an emphasis in human development and culture. Her bachelor's degree is still in the future, but she already holds an associate degree in liberal arts, which she earned in May 2003.



Liz Ramirez works in STB-EPO.

Eventually, she hopes to graduate, get a post-baccalaureate position at the Laboratory, and work full time while she gains perspective on whether she wants to go on to graduate school. If she does go on in school, she might major in psychology or American studies at UNM.

She has enjoyed her job in STB, and she feels that her UNM-LA classes have helped her to be a good employee. "I deal with a lot of people here," she said. She commented that she has applied her university training, and, at the Laboratory, she has gotten a look at the real world, learned more people skills, and developed more professionalism.

Asked if she enjoys working in STB, she said, "Yes. I love it. The summers are a busy time, but I'm working with people my age.... I think everyone in EPO and STB helps to make it fun."

Leah Sandoval

Leah Sandoval, who lives in Nambe, is a business marketing major in UNM's Anderson School of Business. She will be graduating in December. She has been working in STB-EPO for about four and a half years.

She is an outstanding student who has a 3.7 grade point average (on a 4.0 scale) and has made the Dean's List every semester that she has been in college.

Asked if her work in STB-EPO makes use of what she is learning about marketing in college, she thought for a moment and noted, "I do brochures and fliers. Our customer is the students."

(Please see STUDENTS, page 7.)

STUDENTS (Cont'd from p.6.)



Leah Sandoval works in STB-EPO.

She has a lot of direct contact with students, she said, and she is also the treasurer of the Students' Association (for August 2003 through August 2004).

Her studies have included such skills as finance and accounting, and she expects to use them more in the future.

Her goal, she said, is "to stay working here at the Laboratory if I can." She definitely wants to live in this area. She sees lots of opportunities in Los Alamos.

She first applied for a Laboratory job on-line, but she didn't succeed. However, she had a high school friend who worked in STB-EPO and told her when she was leaving. Sandoval took action immediately. She was one of three or four who applied, and she was the successful applicant.

She works full-time during the summer and school breaks. The rest of the time, she said, she works three days a week. She also works at a Santa Fe bed and breakfast on weekends. She will emerge from college with a bachelor's degree and no debts. She noted that her work at the Laboratory has definitely helped her to pay for school. She has also had support from the Hispanic Scholarship Foundation.

"Cynthia (Bustos) has been my mentor all this time," she said. Sandoval likes Bustos so much that she once wrote an article about her for Student News/Student Views, a publication of the Students' Association.

Sandoval's experience at the Laboratory has been a very good one. She likes the fact that STB-EPO provides her with a "day job" that "relates to my degree" and is somewhat flexible, she said.

She is considering applying to grad school, but she hasn't made a decision yet. If she goes on, she said, she will probably also do her advanced study at UNM.

Notes from Allen Hartford

Much has been happening in STB over the past several weeks, including budget and workforce reviews that I presented to the Director's Office. My budget review focused on the impacts to STB of a budget somewhat below our initial request.

As you may have heard during the Director's state-of-the-laboratory address, one of his major focuses is to reduce the cost of doing business, in part so that more of the Laboratory's funding can be invested in science. To make immediate progress in this arena, the Director decided to impose a mid-year reduction of 2% in the General and Administrative (G&A) rate for the Laboratory. All organizations receiving G&A support were affected.

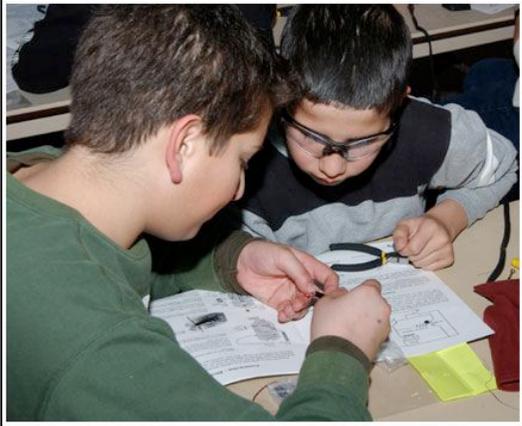
To stay within the budget that STB has been allocated, we have had to make some difficult choices. While we have tried to accommodate some of the impact of our budget by reducing our discretionary spending, because most of our costs are "fixed" (salaries, library subscriptions, etc.), we have had to reassign several people internally, curtail some services and acquisitions, and, I regret, notify some people that we could no longer support them.

These are challenging times during which we must all contribute to making the Laboratory a more efficient and well managed organization if we are to remain a world-class laboratory in today's and tomorrow's competitive environment.

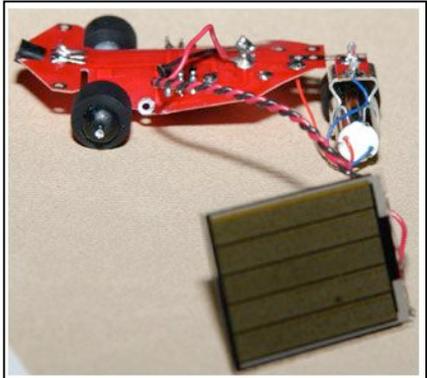
I appreciate the support that you have all given to STB and the Laboratory. I will keep you informed.

Allen

Robotics Creates Delight—and Young Scientists



Photos by Joe Vigil



Joe Vigil of the Education Program Office holds robotics workshops to interest students in science, math, and technology. He held them at Mesa Vista in January, at the Bradbury Science Museum in February, and in Española for Santa Clara Pueblo in March. The seventh and eighth graders involved made solar speeders—and all of them ended up smiling.

Vigil has many helpers from the Lab. The man at right center with the glasses, for example, is Ron Wieneke, group leader of Waste Management and Environmental Compliance (NMT-7). Vigil said Wieneke is a “faithful supporter and helper” who came to Mesa Vista to learn as well as to help.